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Chittenden County Regional Planning Commission

RAILYARD ENTERPRISE PROJECT (REP) SUPPLEMENTAL SCOPING

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SUBMITTED BY:
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IN COOPERATION WITH:
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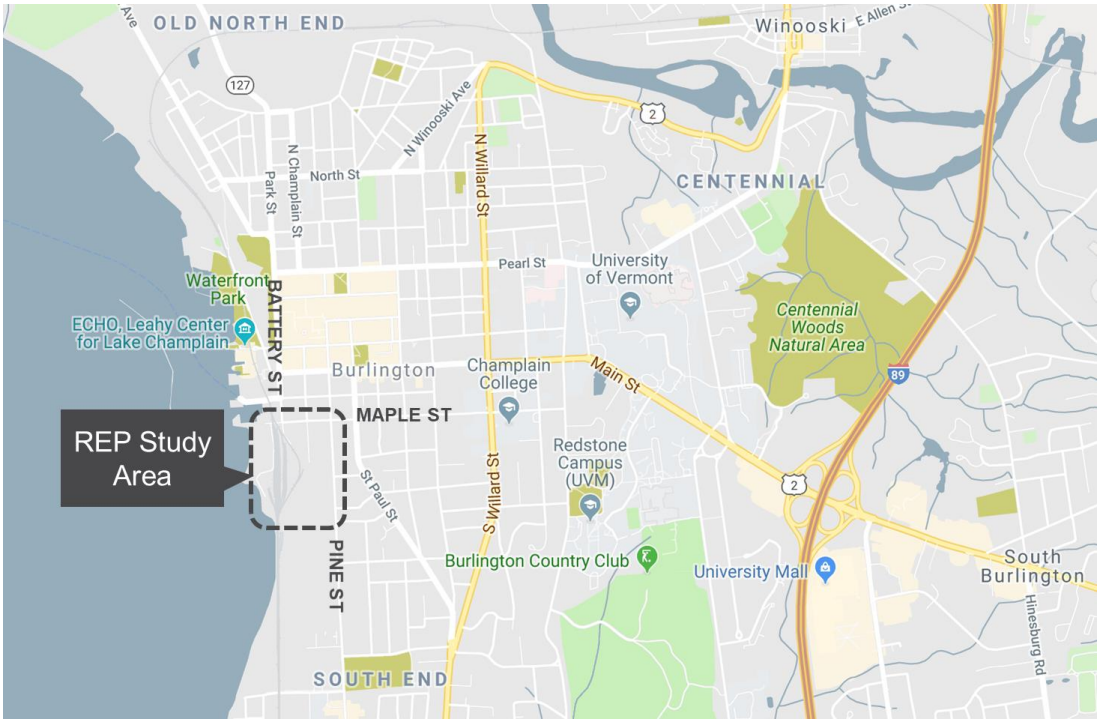
EXECUTIVE SUMMARY

In early 2013, the City of Burlington, in partnership with the Chittenden County Regional Planning Commission (CCRPC) and in close cooperation with the Vermont Agency of Transportation (VTrans) and Federal Highway Administration (FHWA), initiated the **Railyard Enterprise Project (REP)**. The REP aims to address multimodal safety, mobility, and operational transportation issues and to advance economic development opportunities in the southern waterfront area of Burlington (Figure 1) by improving access and mobility through new urban streets.

FIGURE 1: REP STUDY AREA



Map source: Snazzy Maps. Markup by RSG.

The result of the **REP Scoping Study** was the selection, by the Burlington City Council, of three REP alternatives to advance into engineering and permitting under the National Environmental Policy Act (NEPA), a process required for the use of federal funds to finance transportation projects. This **REP Supplemental Scoping Study** is a follow-on to the **REP Scoping Study** and it's goal is to further refine and evaluate one of those alternatives, **Alternative 1B,** and to explore the feasibility of implementing the project without federal funding, using state and local funds only, thereby avoiding a complex, lengthy and costly NEPA process.

1.1 REP PURPOSE AND NEED STATEMENT

PURPOSE: To develop a network of multimodal transportation infrastructure improvements connecting Pine Street and Battery Street, which incorporate the principles of Complete Streets, and to: 1) Support economic development in the area; 2) Improve livability of the surrounding neighborhoods; 3) Enhance multimodal travel connectivity between the Pine Street corridor and Battery Street in the Burlington Waterfront South area; and 4) s Improve intermodal connections to the Burlington Railyard, a National Highway System (NHS)-designated intermodal facility.

NEED:

- **Develop supporting infrastructure to be consistent with the long-term vision of PlanBTV (Downtown and Waterfront part of the municipal plan) associated with the Railyard Enterprise Project area, that supports economic development in the area and enhances Railyard operations.** There is a need for a new street network connecting Pine Street to Battery Street and related infrastructure to support economic development in the area. PlanBTV has identified the Railyard Enterprise Project area as prime for infill, mixed use development to increase economic activity and to provide accessibility to underutilized lands adjacent to the Railyard.
- **Improve livability and connectivity in the Railyard Enterprise Project area.** There is a need to improve the livability of residential areas and emerging mixed-use districts in the Railyard Enterprise Project area. Livability can be enhanced by dispersing traffic and reducing vehicle queues at neighborhood intersections, including the intersections of Pine Street with King and Maple Streets. Additional transportation connections between Pine Street and Battery Street, that do not involve Maple or King Street, will help improve Livability and travel conditions for all users in the Railyard Enterprise Project area.
- **Enhance multimodal travel connections and choices in the Railyard Enterprise Project area.** There is a need for additional multimodal connections in the Railyard Enterprise Project area to support transit system performance, enhance bicycle and pedestrian connectivity and access and facilitate travel for families from existing neighborhoods to Battery Street, the Waterfront, and Lake Champlain. There is also a need to create safe and efficient, family-friendly, dedicated pedestrian and bicycle connections from Pine Street neighborhoods between Maple Street and Lakeside Avenue to the Waterfront, the Burlington Bike Path, and Lake Champlain and improve access from the King Street neighborhood.
- **Improve connectivity and access between nearby streets, the Burlington Railyard, a NHS-designated intermodal facility, and Battery Street, while reducing the impacts of freight operations on adjacent neighborhoods.** There is a need to improve connections to the Railyard in a way that enhances its operations while also reducing the impact of freight operations on adjacent neighborhoods. PlanBTV recognizes the importance of the Burlington Railyard to the City's economy and environment.

1.2 REP SUPPLEMENTAL SCOPING

The REP Supplemental Scoping Study further investigates Alternative 1B, one of the three preferred alternatives from the REP Scoping Study. Of those three alternatives, Alternative 1B was chosen as the most viable project because it has fewer impacts and costs compared to the other REP alternatives. The Burlington City Council resolved on December 12, 2016 to evaluate Alternative 1B due to its potential to be funded entirely through state and local funds, thereby negating the need for a NEPA process, and possibly expediting the delivery of the project.

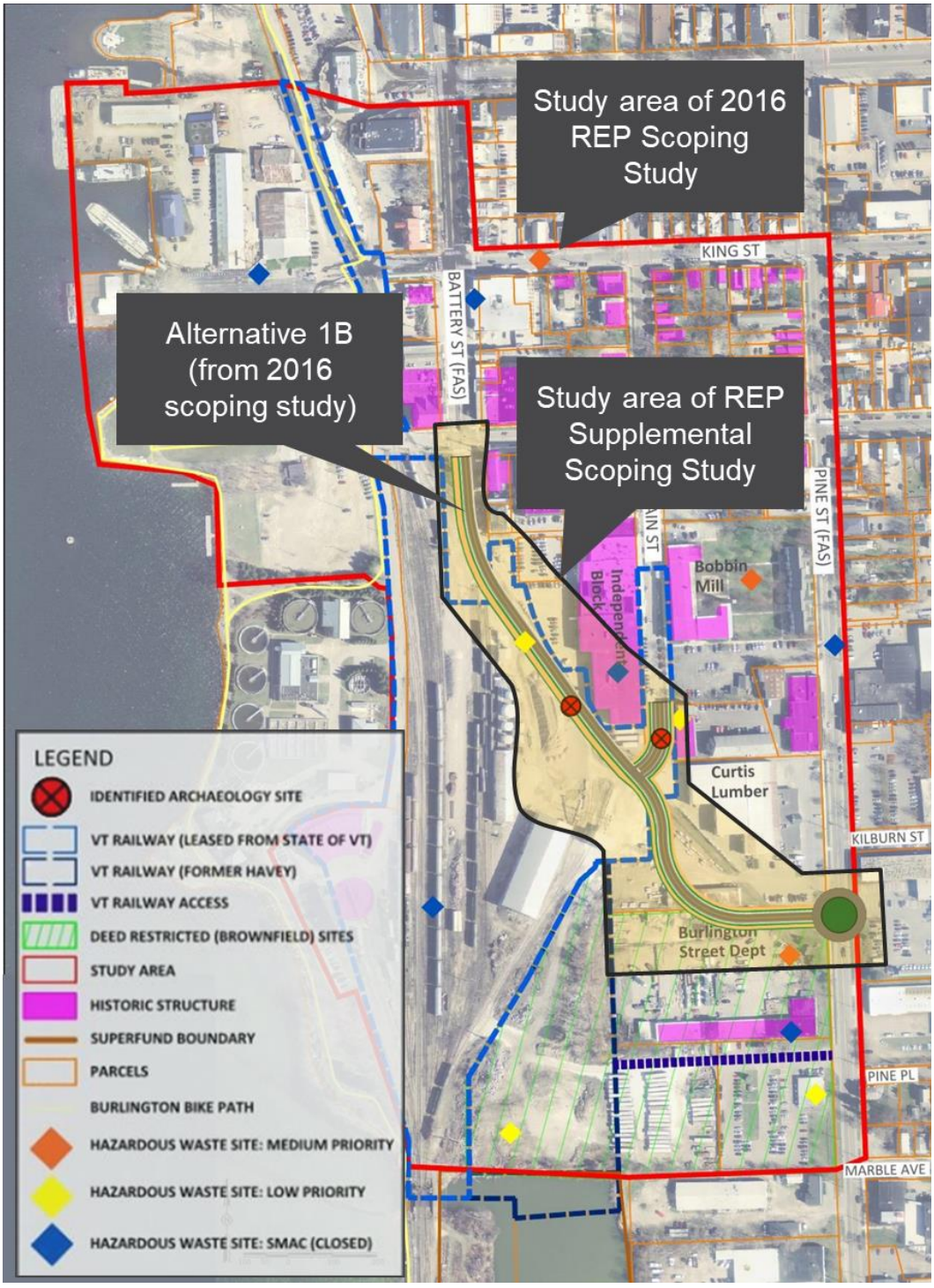
Alternative 1B consists of a single street running between the Battery Street and Maple Street intersection and Pine Street, approximately 1,500 linear feet. The exact location of its Pine Street terminus depends on the type of intersection control at Pine Street, but it would likely be between Kilburn Street and Marble Avenue. The REP Supplemental Scoping Study area is smaller than the initial REP Scoping Study area (See Figure 2). This is because Alternative 1B has a smaller footprint and the analysis is limited to an area more immediately around the alignment.

Major goals of the various alignments of Alternative 1B included: avoid or minimize, to the degree possible, impacts to railyard operations and private properties; minimize permitting requirements and environmental impacts; expedite implementation of the project; develop more accurate construction cost estimates; and evaluate risks. These goals would be accomplished by using detailed boundary and utility surveys as well as archaeological, historic and environmental evaluations to provide the City, VTrans and stakeholders information on risks and opportunities so they can decide how to best proceed with implementing the Railyard Enterprise Project.

Study Area of REP Supplemental Scoping

The study area for the supplemental scoping study is shown in Figure 2 below.

FIGURE 2: REP SUPPLEMENTAL STUDY AREA



Source: RSG (new study area overlaid on REP Scoping Study map)

Key Issues and Evaluations for the REP Supplemental Scoping

Key items that contributed to the complexities and challenges of the supplemental scoping work include:

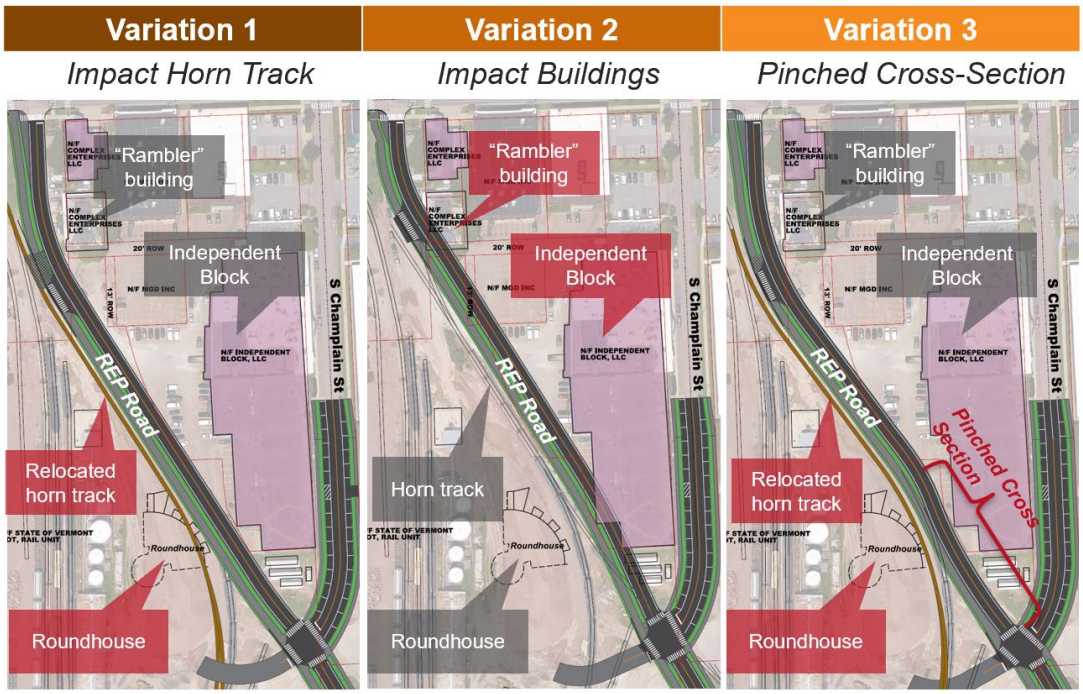
- Historical context of the planning area with several significant contributing resources and a designated nationally recognized historic district.
- Environmental conditions including legacy deficiencies to stormwater management, generalized soil contamination in the study area, and an EPA identified superfund site proximate to the project site with various pockets of localized contaminates.
- An active railyard operating in a limited geographic footprint, proximate to residential areas that serves important freight transload functions and is an economic asset to the grater Burlington region.
- Private and historic properties in close proximity to the railyard and the Alternative 1B REP alignments.

The supplemental scoping study conducted several detailed surveys and evaluations of these areas with the following findings:

- Topographic and boundary survey identified the parcels that may be affected by the various road alignments and intersection improvements.
- Environmental soil conditions were evaluated for the roadway alignment on 339 Pine Street and did not indicate any presence of hazardous criteria pollutants.
- Stormwater evaluation of the study area recommended a new stormwater outfall to Lake Champlain to manage the stormwater in the REP area.
- The location of the Roundhouse, a significant archaeological resource in the railyard, was identified and discussions were conducted with the State Historic Preservation Office and other relevant parties on how best to protect the resource.
- The Independent Block building was identified as a contributing resource in the Pine Street Historic District. Feedback from the Vermont State Historic Advisory Council suggested that the Independent Block building would be a lower priority to protect relative to the Roundhouse given that any impact to the building could be mitigated and the oldest parts of the structure preserved.

Alternative 1B Variations

Three variations of Alternative 1B for the road alignment were developed – see the schematic below. Each variation has different degrees and types of impacts to the railyard and to private and historic properties.



Variation 1: Impact Horn Track (minimize private property impacts)

Variation 1 does not impact Independent Block or the Rambler building, which requires relocating the horn track to the west. The relocated horn track would then lie above the western edge of the roundhouse. The shared-use path of the REP is also likely to partially overlap and cover the roundhouse. The depth of the horn track ballast and shared use path are expected to avoid any physical impact on the roundhouse.

Variation 2: Impact Buildings (minimize railyard impacts)

Variation 2 does not impact the horn track or roundhouse, but it would result in a full demolition of the Rambler building and a demolition and partial reconstruction of the southern end of Independent Block.

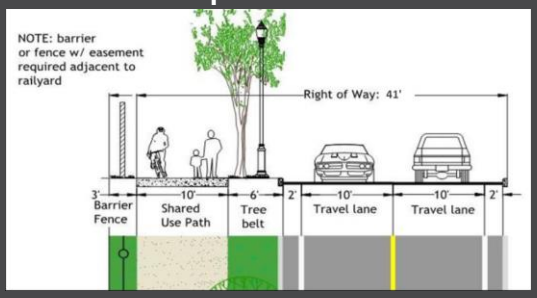
Variation 3: Pinched Cross Section (balanced impacts)

Variation 3 attempts to balance and minimize impacts to both the Railyard and private property by shifting the horn track to the west and narrowing the roadway cross section in the tightest spot. The "pinched" cross section will have no green belt between the shared-use path and the roadway (see below). The horn track would overlap with the roundhouse.

Cross Sections

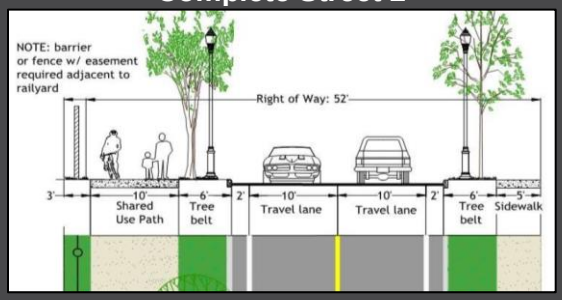
In the REP Scoping Study, Alternative 1B was designed with three different cross sections: *Complete Street 3* north of South Champlain Street, *Complete Street 2* south of South Champlain Street, and *Slow Street 1* on South Champlain Street. All include one 10-foot travel lane in each direction, pedestrian accommodations, and a 6-foot tree belt between the roadway and any sidewalks or shared-use paths. When bordering the railyard, the street would also have a three-foot zone on the west side with a barrier fence. These cross sections generally remained the same in this supplemental study; the major exception is the pinched cross section of variation 3 as shown below.

Complete Street 3



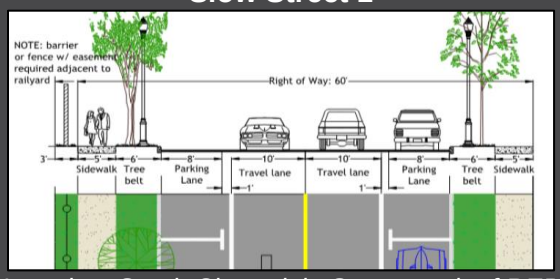
Location: REP road north of South Champlain Street

Complete Street 2



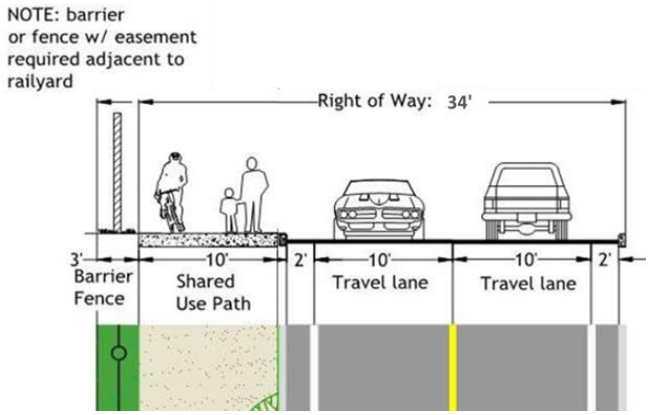
Location: REP road south of South Champlain Street

Slow Street 1



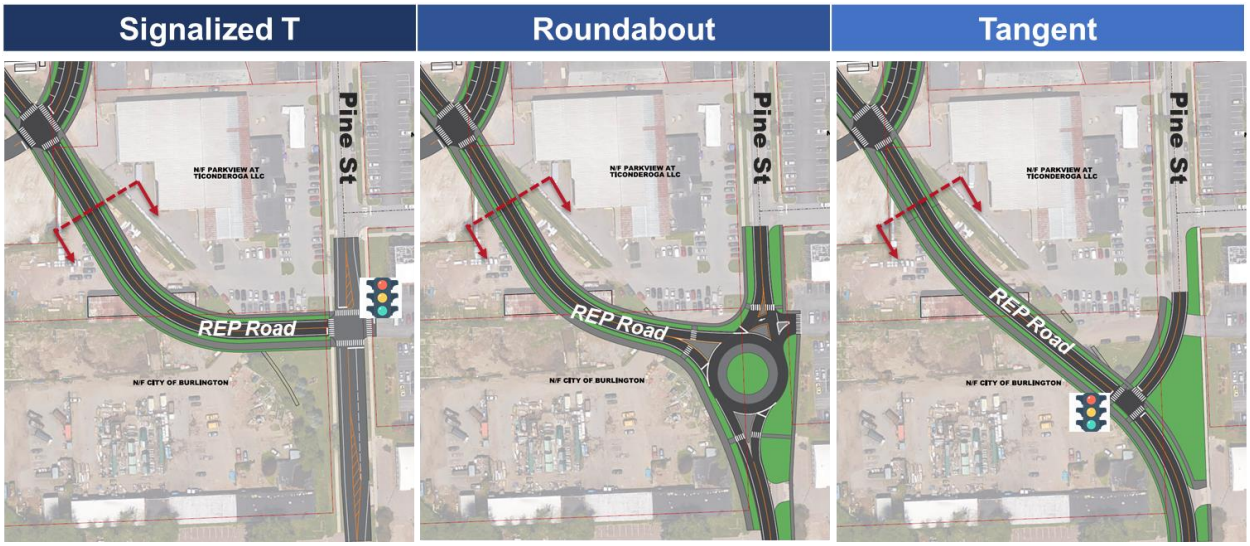
Location: South Champlain Street north of REP road

Variation 3: Pinched Cross Section



New Pine Street Intersection

Three intersection options were developed for the terminus of the new road and the intersection with Pine Street. Each has pros and cons for cost, access to adjacent parcels, traffic diversion, utilities, etc.



Evaluation of Variations of Alternative 1B

The three alignment variations and the three Pine Street intersection options were analyzed against the evaluation criteria, with the ability to mix and match alignment with intersections to arrive at a full project evaluation. The no-build alternative is also considered in the evaluation process.

The categories of evaluation criteria are as follows:

- **Conceptual Cost Estimates**—for roadway construction, land and building acquisition, and relocation of railyard structures/operations.
- **Transportation Impacts**—including pedestrian and bicycle facilities, diversion of traffic from Pine Street, and impacts on transit.
- **Resource Impacts**—archaeological sites, historic buildings, flood hazard zones, hazardous waste sites, and utilities.
- **Private Property Impacts**—including parking spaces impacted and other impacts to the use of a property (land and building acquisitions are identified here but reflected in the cost estimate).
- **Railyard Impacts**—the degree of impact to its operations.
- **Local and Regional Issues**—whether it satisfies the project Purpose and Need, conforms to local/regional plans, and meets environmental justice criteria (all of which were determined in the REP Scoping Study).

Summary of Evaluation Results

Table 1 and Table 2 show the summary scores and cost, respectively, of the nine alternatives, each a combination of one alignment variation and one Pine Street intersection option.

Table 1 shows the cumulative evaluation scores when combining the alignment variation with the intersection options. For example, Variation 1 scores a (-1) and a T-signal scores a (3) adding together = (2). The results indicate that the variations with the tangent intersection scores consistently higher than the other intersection options. Variation 2 is consistently lower scoring compared to Variations 1 and 3.

TABLE 1: SUMMARY EVALUATION SCORES

	VARIATION 1	VARIATION 2	VARIATION 3
T (Signal)	2.0	0.0	2.5
Roundabout	2.5	0.5	3.0
Tangent	5.0	3.0	5.5

Source: RSG

The nine permutations fall within a narrow range between $18 million and $22.6 million in 2018 dollars. The cost estimates were developed with specific input from VRS on the costs to relocate various railyard operations, the City of Burlington on grand list land values and unit costs, and VTrans to review quantities and unit costs. The costs of the options are shown in Table 2.

TABLE 2: SUMMARY COST ESTIMATES

	VARIATION 1	VARIATION 2	VARIATION 3
T (Signal)	$18,000,000	$19,000,000	$18,000,000
Roundabout	$21,500,000	$22,600,000	$21,500,000
Tangent	$20,100,000	$20,100,000	$20,000,000

Source: RSG

Summary of Findings

- Impacts to the railyard will require Vermont Rail Systems to relocate certain operations out of Burlington. Some degree of mitigation can be accomplished within the Burlington railyard through land swaps and specific roadway design elements.
- Variation 3, the ‘hybrid’ solution which minimizes impacts to railyard and private property and reduces the roadway cross-section for a length was identified as the highest ranked (best) variation evaluated.

- The tangent intersection concept was identified as the highest ranked intersection option.
- The project cost is expected to range from $18 million to $22.6 million depending on the variation and intersection option pursued.

Results of the supplemental scoping study were discussed with the REP Steering Committee and project partners.

1.3 STAFF RECOMMENDATION

Following consultation with various project stakeholders, including VTrans, and taking the Project Steering Committee's input into consideration, City and CCRPC Staff recommend that the REP process should revert back to the original scoping recommendation, approved by the Burlington City Council at their December 21, 2015 meeting, to advance three REP alternatives into engineering and permitting under the National Environmental Policy Act (NEPA). This recommendation is primarily based on the complexity and the cost magnitude of the REP that makes it infeasible to implement using local and state funds only.